

Standard Operating Procedure: Liquid Nitrogen Dispensation from 240L tank

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General Cautions

1. Liquid nitrogen is a cryogenic liquid and can cause severe frostbite. Always be cautious when working with it.
2. Liquid nitrogen can quickly displace oxygen in the room. Always work in a well ventilated area with an oxygen sensor.
3. If you are working on the weekend, be sure you are in view of a camera. This means you cannot fill outside of the F20 room. Inform the guard on duty that you will be dispensing nitrogen.
4. If you are unsure of any procedure, consult with EMG staff.

SOP

1. Before dispensing nitrogen, wear appropriate personal protection: cryo gloves and a face mask or goggles. Wear appropriate lab footwear: no open-toed shoes.
2. Insert the tube from the 240L tank into the 4L or 10L dewar. If it does not fit inside the dewar, use an appropriate funnel to prevent spillage. Do not fill containers smaller than 4L from a 240L tank.
3. Open liquid valve to start dispensing liquid. Be careful that flow is not so quick that much spills over or flies back. This is particularly important for the 4L dewar.
4. Fill until dewar is full then close liquid valve. Be sure it is completely closed, but do not over-tighten. Ask staff for assistance if unsure.
5. If a loud whistling sound is heard during filling, this means 240L tank is empty. Stop filling, wait for tank to cool, then move hose to a fresh tank. Mark empty tank as “empty” with sign. Mark full tank as “in use” with sign.